To: Compton, Harry[Compton.Harry@epa.gov]; Carpenter, Angela[Carpenter.Angela@epa.gov]; Singhvi, Raj[Singhvi.Raj@epa.gov]
From: Gilbert, John
Sent: Wed 1/15/2014 2:22:47 PM
Subject: FW: Ohio River sampling adventure

More FYI

-John M. Gilbert | EPA/ERT | 513-607-1571 (cell)

From: Smith, Art
Sent: Wednesday, January 15, 2014 9:04 AM
To: Gilbert, John; Powell, Greg
Subject: Fw: Ohio River sampling adventure

From: Strohmeier, Kevin (EEC) <kevin.strohmeier@ky.gov>
Sent: Wednesday, January 15, 2014 8:33:00 AM
To: Roth, Charlie (EEC); Doyle, Casey (EEC); Giles, Todd (EEC); Jones, Mark (EEC); Maze, Rodney (EEC); Francis, Kevin (EEC); Kellerman, Stephen (EEC); Brown, Eric (EEC); Jackson, Adam (EEC)
Cc: robert.francis@ky.gov; Gabbard, Tom (EEC); Goss, Michael (EEC); Whisman, Jason (EEC); Smith, Art; McCloud, James (EEC); Tichenor, Larry (EEC); Scott, Curtis (EEC); Cann, Mac (EEC); Scott, Eric (EEC)
Subject: RE: Ohio River sampling adventure

Due to the escalating complexity of the sampling, unless I hear something contrary to this, we

will be scaling back the extent of our sampling today and will also plan on doing more extensive sampling tomorrow. Today we will focus on sampling near the intakes and do a comprehensive river survey tomorrow. Due to this delay, we may also need to incorporate the Henderson stretch and add another sampling team out of that area.

Because we don't have complete data on the method yet, we have been advised to collect two-one liter samples from each location, so that will increase the number of coolers and sample containers. We have also been requested to collect water quality parameters, so we will need functioning and calibrated YSIs for each team, something that may present a problem given the number that are sitting by my desk. Let me know if you have one or if you need one.

We have also been requested to sample at four feet below the water surface, so each team will need a depth sampler. This will require decontamination procedures between sample locations and will require additional DI water and a carboy with a mild detergent solution. An additional QC sample will be required for rinsate. In the meantime, evaluate your water source, one liter bottle supply and anything else I may be missing, in addition to the list I sent out last night.

Frankfort area ERT members, you may get called on for shuttle duty to help distribute supplies. Buck, I may need you to head to Frankfort and do a quick evaluation on YSI meters, if you're available.

Thanks everybody for your help and patience. This is an evolving process, so things may change again.

Kevin L. Strohmeier

Response Coordinator/State On-scene Coordinator

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From: Strohmeier, Kevin (EEC)
Sent: Wednesday, January 15, 2014 12:17 AM
To: Roth, Charlie (EEC); Doyle, Casey (EEC); Giles, Todd (EEC); Jones, Mark (EEC); Maze, Rodney (EEC); Francis, Kevin (EEC)
Cc: Francis, Robert (EEC); Gabbard, Tom (EEC); Goss, Michael (EEC); Whisman, Jason (EEC); 'Smith, Art'
Subject: Ohio River sampling adventure

If you need to get up to speed on what the event is there is a decent summary here: http://en.wikipedia.org/wiki/2014_Elk_River_chemical_spill

The concern is for ERT to collect samples 1) to assist water treatment plants with surface water intakes to make good decisions about operations and 2) for possible enforcement action against the responsible party in Charleston. Because of the latter, we need to be very diligent in making sure our samples are defensible in court and as accurate as possible. Since I haven't heard otherwise, I'm assuming we will be treating this as a sample for volatile organics analysis, so samples will be collected in 40 ml vials and preserved with 50% hydrochloric acid and on ice. As of now, samples will be collected at the surface so there will be no depth sampling done, so there won't be equipment decontamination to worry about. However, the boats you will be sampling from will be large enough that you will need a way to reach the water, such as a bucket or bailers. Let me know ASAP in the morning if you need 40 ml vials, acid, or DI water for preparation of blanks.

Sample numbers are designed to provide instant recognition for site, regulatory program, sample medium, field sample number, and date. The first part of the SampleNo provides site information and consists of the incident number and a short description of the site. The second part identifies the regulatory program (DWM, DOW, DAQ and ERT) or the consultant or other agency collecting the sample (a three character alphanumeric sequence that suggests the consultant's name). The third part identifies the sample code to use based on the sample or measurement (as outlined elsewhere). The fourth part is the field-assigned identification that relates the sample or measurement to a location or a structure (identified by GPS coordinates and depth, if applicable) on the Chain of Custody and the ERD. The fifth part of the sample number is the date the sample was collected or the measurement was taken. If space is limited on the CoC form, the first part of the sample number can be eliminated as long as it is referenced on the CoC.

The complete sample number to be used on the CoC will be I-2372199_Freedom-Industries_ERT_WSu_xxxx_MoDaYr. (WSu indicates a surface water sample.) xxxx_MoDaYr will be the sample number to put on the vials and the CoC for the sample identification.

Samples collected by the Louisville sample team (Roth and Doyle) will use sample numbers starting at 1000 and numbered consecutively, being sure to record the sample time and GPS location.

Samples collected by the Northern Ky sample team (Giles and Jones) will use sample numbers starting at 2000.

Samples collected by the Ashland sample team (KFrancis and Maze) will use sample numbers starting at 3000.

If any samples are collected by FOB personnel from the raw water intake at any of the WTPs, change the sample names to I-2372199_Freedom-Industries_DOW_WIn_xxxx_MoDaYr, using the sample numbers for each of the three teams as above.

It's a pain in the ass on the front end, but it will make tracking results after the excitement has died down a whole lot easier. Make sure you're clear on what I'm asking before you get out in the field.

For QC samples, each team will need a trip blank that is prepared at your office or lab using DI water and the acid preservative. A field blank should be prepared in the field from the same DI water source and acid preservative approximately at the midpoint of the sample collection. These should be designated as I-2372199_Freedom-Industries_ERT_WQC_1TBl_MoDaYr for the Louisville team trip blank, and so forth. Art, please advise if you think we should do a rinsate blank if the teams are using a bucket to collect samples.

The lab would like triplicate samples for each sample location. In general, sample from lowest

to highest concentration to reduce the risk of contamination; in this case, this will be assumed to be from downstream to upstream locations. One DEP person will handle the samples and one DEP person will record the data for the CoC. One of the Coast Guard folks will assist in sample collection. Take plenty of disposable gloves. Each team should take pH paper to make sure that a sample is getting adequately acidified to pH<2. I think five to eight drops should be sufficient, but please verify this at least once with your acid and a water sample.

The weather is going to be most unpleasant tomorrow, so be sure to dress appropriately. Presumably, the Coast Guard boats will have adequate PFDs on board, but that is required safety gear.

Your sample collection and handling list should include:

dipper or bucket

DI water, probably at least three gallons for rinsing dipper between samples

gloves

40 ml sample vials; assume 12 samples collected plus QC samples for each team.

large cooler with ice

50% HCl for preservative

Chain of custody, both pages

labels

GPS

If I've forgotten anything, let me know ASAP so I can make sure the other teams have it.

Kevin L. Strohmeier

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